



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,063	08/01/2003	J. Joseph Allred	134358XZ (15022US01)	3586

23446 7590 08/21/2006

MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER

BROWN, MICHAEL J

ART UNIT	PAPER NUMBER
----------	--------------

2116

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/633,063	Applicant(s) ALLRED ET AL.	
	Examiner Michael J. Brown	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokuyama(US Patent 6,229,286).

As to claim 1, Tokuyama discloses an adaptable power management system(charging controller, see Fig. 1; see column 3, line 64), the system comprising a plurality of measurement units(unit consumption current detection circuit 26, charging current detection circuit 8, and charging voltage detection circuit 9; see Fig. 1) for measuring current in an imaging system(operation circuit 11, see Fig. 1), each of the plurality of measurement units associated with one of a plurality of components(unit load 7, see Fig. 1) of the imaging system to measure current in the component, and a main system power(DC source 1, see Fig. 1) for providing power to the imaging system for core system functions. Tokuyama also discloses a battery charger(charging circuit 14, see Fig. 1) for recharging a battery(secondary cell 4, See fig. 1) used for imaging, and a power controller(charging control circuit 2, see Fig. 1) for dynamically allocating power among the main system power and the battery charger based on current measurements from the plurality of measurement units and imaging system configuration information.

As to claim 2, Tokuyama discloses the system wherein the measurement unit measures at least one of current and voltage at a plurality of points in the imaging system(see column 4, lines 28-32).

As to claim 3, Tokuyama discloses the system wherein the power controller controls battery charging current after main system power has been allocated(see column 4, lines 32-39).

As to claim 4, Tokuyama discloses the system further comprising at least one component providing additional function in the imaging system(see column 4, lines 41-50).

As to claim 5, Tokuyama discloses the system wherein the power controller allocates power among the at least one component(see column 4, lines 36-39).

As to claim 6, Tokuyama discloses the system wherein the power controller dynamically allocates power within a power limit(see column 4, lines 36-39).

As to claim 7, Tokuyama discloses a method for dynamic power management in an imaging system(operation circuit 11, see Fig. 1), the method comprising measuring current input in an imaging system, measuring current usage at a plurality of components in the imaging system(see column 4, lines 28-32), and dynamically allocating power in the imaging system based on a system configuration, the current usage, and the current input in the imaging system(see column 4, lines 32-39).

As to claim 8, Tokuyama discloses the method wherein the measuring step further comprises measuring at least one of voltage and current at a plurality of locations in the imaging system(see column 4, lines 28-32).

As to claim 9, Tokuyama discloses the method wherein the allocating step further comprises dynamically allocating power based on system usage(see column 4, lines 36-39).

As to claim 10, Tokuyama discloses the method further comprising re-allocating power in the imaging system based on a change in configuration(see column 4, lines 28-39).

As to claim 11, Tokuyama discloses the method further comprising re-allocating power in the imaging system based on current consumption exceeding a predefined limit(see column 4, lines 32-39).

As to claim 12, Tokuyama discloses the method further comprising allocating available current to a battery charger(see column 4, lines 28-39).

As to claim 13, Tokuyama discloses the method further comprising maintaining at least a minimum level of power for basic imaging system functions(see column 5, lines 4-35).

As to claim 14, Tokuyama discloses the method further comprising controlling an amount of current drawn by components in the imaging system(see column 5, lines 4-35).

As to claim 15, Tokuyama discloses a power management system(charging controller, see Fig. 1; see column 3, line 64) for an imaging system comprising a power input(DC source 1, see Fig. 1) providing power to an imaging system(operation circuit 11, see Fig. 1), at least one measurement unit(unit consumption current detection circuit 26, charging current detection circuit 8, and charging voltage detection circuit 9; see Fig.

Art Unit: 2116

1) for measuring current in the imaging system, and a power management controller(charging control circuit 2 and operation circuit 11, see Fig. 1) allocating available power among components in the imaging system based upon system configuration, wherein the system configuration includes at least one of a selected imaging mode of operation, a number of components in use, component consumption, available input current and a cord current capacity limit(see column 4, lines 20-39).

As to claim 16, Tokuyama discloses the system wherein the power management controller allows a battery for the imaging system to charge at a maximum rate based on current consumption by the components in the imaging system(see column 4, lines 36-39).

As to claim 17, Tokuyama discloses the system wherein the at least one measurement unit measures a voltage and a current for the power provided to the imaging system(see column 4, lines 28-32).

As to claim 18, Tokuyama discloses the system wherein the power management controller controls current drawn by the components in the imaging system(see column 4, lines 36-39).

As to claim 19, Tokuyama discloses the system further comprising a limit sensor for detecting when current consumption exceeds a certain limit(see column 4, lines 32-39).

As to claim 20, Tokuyama discloses the system further comprising at least one switching unit controlled by the power management controller, wherein the at least one

switching unit controls an amount of power routed to at least one component in the imaging system(see column 4, lines 41-48).

As to claim 21, Tokuyama discloses the system wherein the imaging system configuration information includes at least one of a selected imaging mode of operation, a number of components in use, component current consumption, available input current and a cord current capacity limit(see column 4, lines 20-39).

Response to Arguments

2. Applicant's arguments, filed 7/27/2006, with respect to the rejection(s) of claim(s) 1-20 under Gordon et al.(US Patent 5,808,376) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tokuyama(US Patent 6,229,286).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Brown whose telephone number is (571)272-5932. The examiner can normally be reached on Monday-Thursday from 7:00am to 5:30pm(EST).


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIRS) system. Status information for the published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 2116

Status information for unpublished applications are available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

Michael J. Brown
Art Unit 2116



LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100